Notes on Probability and Statistics

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Chapter 1 – Common Distributions **11**

I. What is a distribution? 11

1| Common Distributions

I What is a distribution?

A probability distribution is a mathematical function that gives the chance of a given event inside the sample space. Formally, one can say:

Probability distribution function. *Let* (X, σ, μ) *be a probability space. Then,*

Distributions are a main subject inside statistics. If a given random data distribution is known, then everything about that data is easy to deduce. Therefore, the main object inside statistical analysis is **learn everything possible about the underlying data distribution**.

Parte III

Useful Techniques on Statistics

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